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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/528,823 | 03/20/2000 | Hiroaki Sato | FUJY 17.160 | 6313 |

7590 01/15/2004

Katten Muchin Zavis Rosenman
575 Madison Avenue
New York, NY 10022-2585

EXAMINER

CHUNG, JASON J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2611

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/528,823

Applicant(s)

SATO ET AL.

Examiner

Jason J. Chung

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3, and 4 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis (US Patent # 5,898,899) in view of Dufresne (US Patent # 4,920,533).

Regarding claim 1, Ellis discloses the amplifiers are on a CATV network and can have signals that go to a subscriber going upstream and downstream (column 2, lines 39-54), which meets the limitation on at least one bi-directional amplifier provided on a CATV transmission path for connecting a CATV center station to a subscriber home.

Ellis discloses the CATV signal also contains an AC component signal that activates the amplifier with a voltage (column 3, lines 9-24; figure 2), which meets the limitation on bias voltage superposing means for superposing with a bias voltage within a bi-directional amplifier at the terminal of the at least one bi-directional amplifier, a downstream signal transmitted along a coaxial transmission path subordinate to the bi-directional amplifier at the terminal.

Ellis fails to disclose a bias current adjusting load means provided at the end of the coaxial transmission path for setting the bias current corresponding to the application of the biased voltage superposed by the bias voltage superposing means and for causing a uniform current to flow on the coaxial transmission path. As disclosed by the applicant on page 18, lines 8-14, the applicant discloses that a terminating resistor at the end of every tap-off line would cause the uniform current to flow to all coaxial connectors. Dufresne discloses the network is terminated at a matching impedance Γ in a well known manner; furthermore, as illustrated in figure 1, Dufresne discloses the terminated matching impedance Γ and a terminating impedance is also terminating at the end (illustrated to the left of splitter 5) of the splitter (column 4, lines 7-22; figure 1), which meets the limitation on a bias current adjusting load means provided at the end of the coaxial transmission path for setting the bias current corresponding to the application of the biased voltage superposed by the bias voltage superposing means and for causing a uniform current to flow on the coaxial transmission path. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ellis to include an impedance match as taught by Dufresne in order to reduce signal reflections thereby increasing the integrity of the signal.

3. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of Dufresne.

Regarding claims 3, 4, as disclosed in claim 1 rejection, Dufresne discloses an impedance element terminating the network. Neither Ellis nor Dufresne discloses the impedance element is a resistance element or an inductor element and capacitor element. The examiner takes Official Notice that an impedance comprising resistors or LC circuits are notoriously well known in the

Art Unit: 2611

art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ellis in view of Dufresne to have the impedance element be a resistance element or an LC circuit in order to give the impedance a variety of circuit choices thereby increasing system versatility.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason J. Chung whose telephone number is (703) 305-7362. The examiner can normally be reached on M-F, 7:30AM-5:00PM.

Art Unit: 2611

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew I. Faile can be reached on (703) 305-4380. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

JJC



VIVEK SRIVASTAVA
PRIMARY EXAMINER